



The Premier Earthing and Lightning Protection Manufacturers

PRODUCT CATALOGUE

A Division of Kingsmill Industries (UK) Ltd down to earth service





The Premier Earthing and Lightning Protection Manufacturers down to earth service

Kingsmill Industries (UK) Ltd is a leading manufacturer and distributor of earthing and lightning protection products for the UK and export markets.

The company aims to provide the highest standards of service and customer care without compromising quality or price. Undeniably, quality assurance is of paramount importance to the company and, to ensure this, all products are manufactured in accordance with BS EN 62305, BS EN 50164 and BS7430.

Kingsmill Industries (UK) Ltd is an ISO 9001: 2000 registered company.



Introduction

Company Background

Kingsmill Industries (UK) Ltd . . .

Kingsmill Industries (UK) Ltd have become a leading manufacturer and distributor of earthing and lightning protection products for the UK and export markets.

The company aims to provide the highest standards of service and customer care without compromising quality or price. Undeniably, quality assurance is of paramount importance to the company and, to ensure this, all products are designed and manufactured to meet stringent British and international standards - including BS6651, BS7430 and UL467. In addition we have achieved the UK governments full ISO9002 National Accreditation in recognition of the high quality of our management systems and products.

Kingsmill Industries (UK) Ltd is intrinsically sensitive to the needs of its customers and to the requirements of an ever-changing technological world.





Introduction to the Catalogue . . .

This catalogue has been designed to meet the following specification:

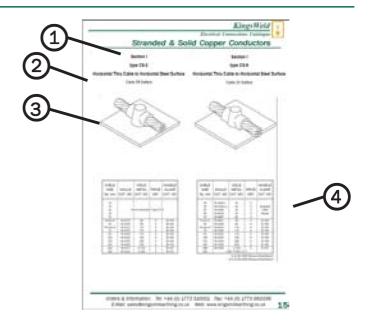
- ☐ To provide as much relevant information about each product as possible.
- For products to be easily located and referenced.

To help find the product you require, there is a part number index and diagrammatic product locator.

Products featured have technical and application drawings to ensure the correct product is related to the right application.

See the page diagram to the right that displays the page format and the way in which the catalogue has been designed to provide easily accessed product data and information.

Kingsmill



- 1. Chapter Heading
- 2. Product Reference
 - 3. Product Picture
- 4. Product Data Table

There are both new products and a wider selection of existing product ranges included within this catalogue.

Website: Our website contains our product range with data specification - www.kingsmillearthing.co.uk

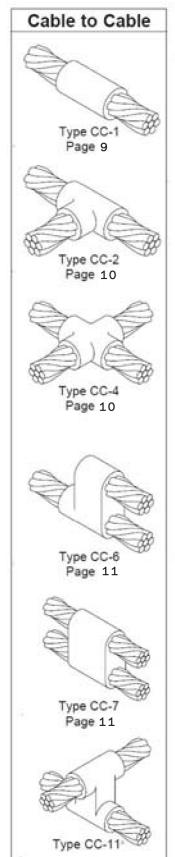


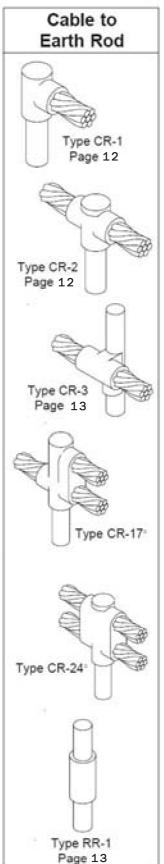


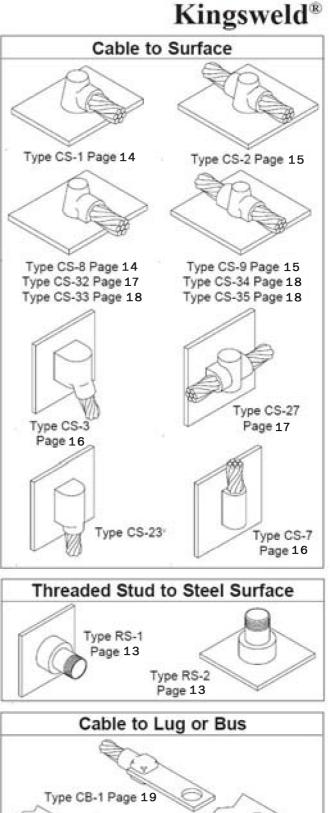
Table Of Contents

TECHNICAL SECTION	
Selector Chart	Page 3-4
Kingsweld Process	Page 5
How to Make a Kingsweld Connection	Page 6
How to Order	Page 7
SECTION I	
(Stranded & Solid Conductors)	
Cable to Cable	Page 8-11
Cable to Ground Rod	Page 12-13
Threaded Stud to Steel Surface	Page 14-19
Cable to Steel Surface	Page 14-19
Cable to Lug or Bus Bar	Page 20
Bus Bar to Bus Bar	Page 21-22
Bus Bar to Ground Rod	Page 23
Bar to Steel Surface	Page 24
Threaded Stud to Rail	Page 25
Cable to Rail	Page 25
SECTION II	
(Kingsweld Moulds, Weld Metal & Accessories)	
Ground Plates	Page 27
Aircraft Grounding Receptacles	Page 28
Kingsweld Moulds	Page 29-31
Weld Metal	Page 32
Handle Clamps	Page 33
Accessories	Page 34-37

Selector Chart



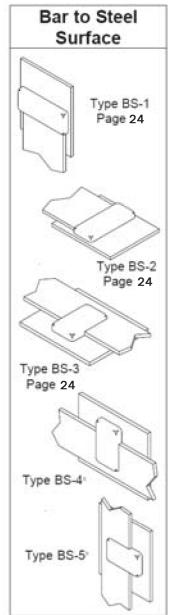


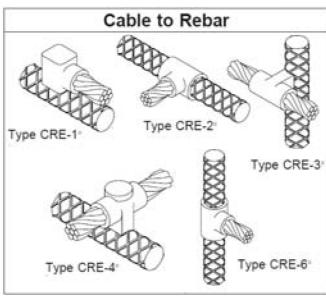


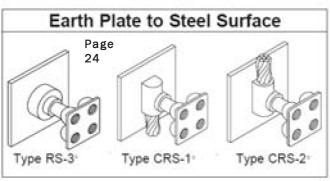
Type CB-5 Page 20 Type CB-4 Page 20

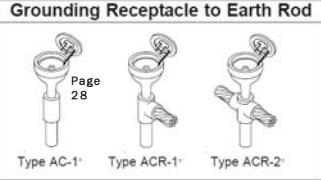


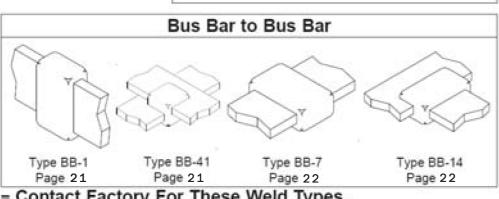
Selector Chart



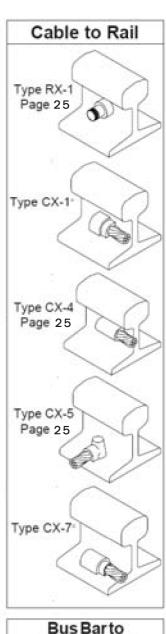


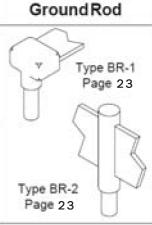












= Contact Factory For These Weld Types.
For Weld Types Not Shown Contact Factory.

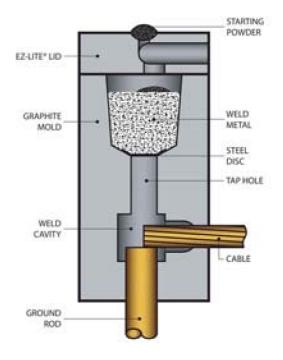
KingsWeld Process

The KingsWeld electrical connection process is a simple, efficient method of welding copper to copper or copper to steel. No outside source of power is required when using KingsWeld. KingsWeld connections use the high temperature of reaction of powdered copper oxide and aluminium.

The reaction takes place in a semi-permanent graphite mould (KingsWeld Mould) that lasts for fifty or more welds if properly cared for. The KingsWeld reaction takes place in a few seconds, therefore the toal amount of heat (calories or BTU's) applied to the conductors or surfaces is considerably less than that employed in brazing or soldering. This is an important consideration when welding to insulated cable or thin wall pipe.

KingsWeld is ideal for field use, since it is light and portable and requires no outside power source. It requires very little time or skill to obtain an efficient, maintenance free electrical connection when using KingsWeld.

KingsWeld equipment required for making all types of electrical connections are shown on the following pages.



Cutaway Section of CR-1

KingsWeld Connection

The KingsWeld connection is a molecular weld. The weld metal has the same melting point as copper. Becuase of these factors along with the increased cross section of the connection, KingsWeld connections:

1. Will not be affected by a high current surge. Tests have shown that the electrical conductor will melt before the KingsWeld connection when subjected to

high short-circuit current. Consult standard I.E.E.E. Standard 80-1989.

- 2. Will not loosen or corrode at the point of weld. There are no contact surfaces or mechanical pressures involved. A KingsWeld connection becomes an integral part of the conductor.
- 3. Have a current-carrying capacity equal to or greater than that of the conductors.

KingsWeld equipment has been used to weld materials other than copper for electrical purposes.

Materials welded have included:

Stainless Steel Monel Copper Clad Steel Steel Rail **Brass** CopperWeld Plain Steel **Bronze** Chromax Nichrome Nichrome V Everdur Galvanised Steel Wrought Iron Cast Iron Kama Cor-Ten Silicone Bronze Columbium Niobium

When welding to galvanized steel it may be necessary to resurface exposed bare steel (see page 29-31)





Making a Kingsweld Connection



1. Position cleaned conductors in mould after making sure mould is dry, by pre-heating or making a test joint.



2. Place metal disc in bottom of mould crucible.







3. Dump powder into crucible, spreading some starting powder on edge of mould.



4. Close lid and ignite with flint gun from side, fire sparking onto the starting powder.







5. Reaction takes place.



6. Remove weld and clean mould before making next connection.

Ordering KingsWeld

How to Order Kingsweld Material

In order to receive the correct material, it is important to have all the relevant information regarding the type of installation you are to make before selecting the KingsWeld material. Information required to select the correct materials are:

1. Materials to be welded (Copper, Steel, Cast Iron etc)2. Cable size and type (Solid or Stranded, Copper or Steel)3. Weld type (Configuration)

Additional information may be required for a particular weld type. If more information is required, it will be asked for with that weld type at the time of quotation.

After you have selected the cable size and weld type to be used, use the selector chart to find the page number for that particular weld type. After turning to the correct page, find the correct cable size and follow it across to get the Mould number, cartridge size and price key.

If required, select sleeves, packing material, ground plates, lugs, etc.

Specify handle clamp if required. All moulds with Price Key 4, 7 and 17 require 40-0106-00 handle clamps and all moulds with price key 5, 6 and 8 require 40-0107-00 handle clamps. All other price key moulds come complete with frame.

To clean the cable, order the cable cleaning brush 38-0135-00 (see page 37) and to clean steel or cast iron surface use 38-0101-00 rasp (see page 35).

Before making any connection, always read the enclosed instruction sheet. This instruction sheet tells you about the precautions to be taken, how to clean the materials to be welded and how to make the weld connection.

BASIC MATERIAL REQUIRED To Make A KingsWeld Connection

The Correct KingsWeld Mould
KingsWeld Handle Clamps (if required)
Weld Metal
Flint Gun
Wire Brush











Electrical Connections Catalogue

Stranded & Solid Copper Conductors

Section I

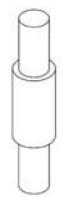
type CR-3

Section I

type RR-1

Horizontal thru Cable to Ground Rod

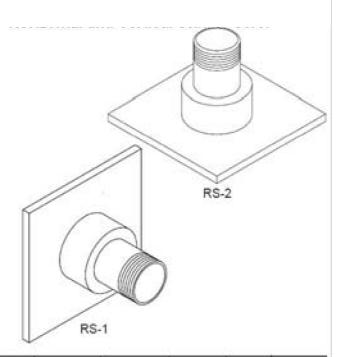
Ground Rod to Ground Rod



GRD ROD	CABLE	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO
12.8	10	M-2801+	90	7	B-106
	16	M-2802++	90	7	B-106
	25	M-2804	90	7	B-106
	5.6 mm Ø	M-2805	90	7	B-106
	30	M-2808	90	7	B-106
	35	M-2813	90	7	B-106
	50	M-2815	115	7	B-106
	8 mm Ø	M-2816	115	7	B-106
	70	M-2818	115	7	B-106
	95	M-2819	115	7	B-106
	120	M-2821	150	7	B-106
14.3	5.6 mm Ø	M-2823	90	7	B-106
	30	M-2824	90	7	B-106
	35	M-2826	115	7	B-106
	50	M-2827	115	7	B-106
	8 mm Ø	M-2828	115	. 7	B-106
	70	M-2829	115	7	B-106
	95	M-2831	115	7	B-106
	120	M-2837	150	7	B-106
	150	M-2838	150	7	B-106
	185	M-2839	250	7.	B-106
	240	M-2840	2-200	8	B-107
17.2	30	M-2841	90	7	B-106
	35	M-2844	90	7	B-106
	50	M-2845	115	7	B-106
	8 mm ⊘	M-2846	115	7	B-106
	70	M-2847	150	7	B-106
	95	M-2848	150	7	B-106
	120	M-4882	200	7	B-106
	150	M-2850	250	7	B-106
	185	M-2851	2-200	8	B-107
	240	M-2852	500	8	B-107
	300	M-2853	3-200	- 8	B-107

+(2)38-4588 Sleeves/Weld Req'd ++(2)38-4589 Sleeves/Weld Req'd

GROUND ROD SIZE mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	CLAMP CAT. NO.
12.8	M-3624	150	17	B-106
14.3	M-3625	200	17	B-106
17.2	M-4522	250	17	B-106



Section I

type RS-1 & RS-2

Horizontal and Vertical Stud to Steel

STUD SIZE mm	RS-1 MOULD CAT. NO.	RS-2 MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
10	M-2891	M-4382	45	4	B-106
12	M-4285	M-4383	65	4	B-106
16	M-2822	M-4471	115	4	B-106

Moulds for copper studs available. For information, contact Kingsweld.







Section I

Section I

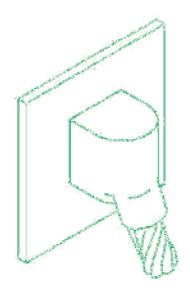
type CS-3

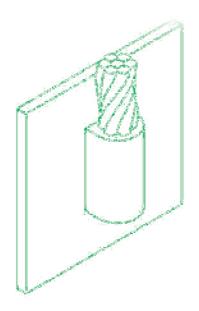
type CS-7

Angular Cable Drop to Vertical Steel Surface

Overhead Vertical Tap Cable to Vertical Steel Surface

Cable On Surface





CABLE SIZE Sq. mm	MOULD CAT, NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. HO.
16	04.56626	40	· a	3-106
16	35365664	46	-4	9-100
25	08-34-95	265	4	84-705
30	25,48570	45	- 4	E-108
36	86-3640	45	8:	9-100
के सहार की	94-4072	500	14	8-188
50	54-3447	90-	- A	B-905
10 man 69	34-0201	115	4	59-1998
78	14-3449	. 95	4	3-100
79 93	34-3451	115	1	39-1-003
320	68-3453	115	-4	E-156
150	34.5453	115	.4.	35-7600
1865	R4-3454	200	-4	8-109
240	26-3455	310	- 6	8-108
300	84-3459	256	á.	82-196

1-(1)38-456436ceventru	dRagis.
4-5-(1) 30-4560 Stooms/Old	dPag/d

CABLE SIZE SQ. MW	MOVAB CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	Harrie Glamf Cat. No.
10	26.34504	65	4	15.103
16	96-3601+4	95	4	B-100
285	98-3462	65	.43	51-1 Od5
30	66-4203	85	-4	19-1045
36	96-3653	65	-4	8-996
3 1000 19	66.4352	\$50	6	8-106
-50	86-3469	99	4	8-106
10 mm 91	#£4769	150	43.	19-108
70	\$6-3660	150	47	8-198
95	86-3469	200	17	9/103
130	3428450	200	17	94108
350	64.5470	230	17	51-106
495	85-3570	2:359	- 5	_S-107_
243	76/3472	2>750	-6	B-1007
\$60	\$63573	3/3(0)	多	84197

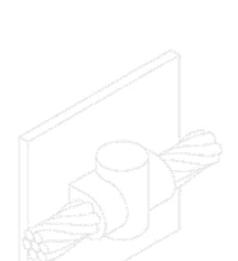
+(1)33-4588 Status West Regid ++(1)38-4509 Status West Regid

Section I

type CS-27

Horizontal Thru Cable To Vertical Steel

Cable On Surface



MOULD CAT, NO.	WEID METAL CAT. NO.	
\$6-4706 \$6-3600 \$6-4608 \$0.5600		

(2) S6-4688 State vera Mold Respt.
 A.A. Princip and Advanced Conference

Section I

type CS-32

Horizontal Cable Tap To Horizontal Steel

Pipe For Cathodic Protection



	MOULD CAT, NO.	WELD METAL CAY, NO.	

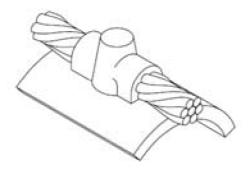
(1) 36-4580-3 is eyo Wicki Fles(0)
 -- F1 330-4505-5 is expected in the point

Section I

type CS-34

Horizontal Cable Thru to Horizontal Steel

Pipe for Cathodic Protection

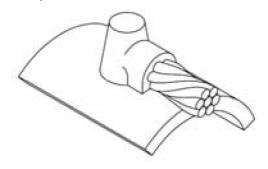


Section I

type CS-33

Horizontal Cable Tap to Horizontal Cast Iron

Pipe for Cathodic Protection



CABLE SIZE Sq. mm	PIPE DIA. in mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	CLAMP CAT. NO.
25,486	up to 105	M-4167+	25	3	
25,486	over 105	M-4168+	25	3	
10	up to 105	M-4169++	32	3	
	over 105	M-4170↔	32	3	HANDLE
16	up to 105	M-4171+++	45	3	
1957	over 105	M-4172+++	45	3	
25	up to 70	M-4173	32	3	INCLUDED
	70 to 165	M-4174	32	3	WITH
	over 165	M-4175	32	3	MOULD
35	up to 70	M-4176	45	3	200000000
25000	70 to 165	M-4177	45	3	
	165 to 250	M-4178	45	3	
	over 250	M-4179	45	3	
50	up to 70	M-4180	65	3	
	70 to 165	M-4181	65	3	
	165 to 250	M-4182	65	3	
	over250	M-4183	65	3	

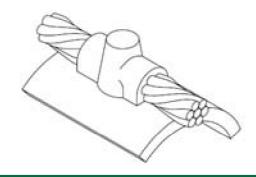
CABLE SIZE Sq. mm	DIA. in mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	CLAMP CAT. NO.
2.5,48.6	Flat	M-4188+	45CI	3	
10	Surface	M-4189++	45CI	3	HANDLE
16	10	M-4188+++	45CI	3	INCLUDED
25	750 Dia	M-4191	45CI	3	WITH
35	and	M-4192	45CI	3	MOULD
50	above	M-4193	45CI	3	10/05/05/05
70	pipe	M-2868	65CI	3	

+(1)38-4590 Sleeve/Weld Req'd ++(1)38-4588 Sleeve/Weld Req'd +++(1)38-4589 Sleeve/Weld Req'd

+(2)38-4590 Sleeve/Weld Req'd ++(2)38-4588 Sleeve/Weld Req'd +++(2)38-4589 Sleeve/Weld Req'd

type CS-35

Horizontal Cable Thru to Horizontal Cast Iron Pipe for Cathodic Protection



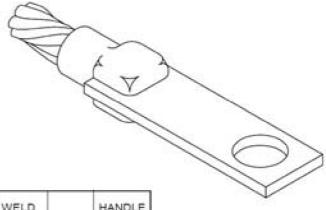
SIZE Sq. mm	DIA.	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	CLAMP CAT. NO.
25,486	Flat	M-2876-I-	32CI	3	
10	Surface	M-28824-4-	45CI	3	HANDLE
16	00'	M-28834-4-4	45CI	3	INCLUDED
25	750 Dia	M-2884	45CI	3	WITH
35	and	M-2887	45CI	3	MOULD
50	above	M-2889	65CI	3	
70	pipe	M-2890	65CI	. 3	

+(2)38-4590 Sleeve/Weld Req'd ++(2)38-4588 Sleeve/Weld Req'd +++(2)38-4589 Sleeve/Weld Req'd

Section I

type CB-1

Horizontal Cable Tap to Horizontal Lug or Bus



CABLE	LUG SIZE	MOULD	WELD METAL	PRICE	HANDLE CLAMP
Sq. mm	in mm	CAT. NO.	CAT. NO.	KEY	CAT. NO.
10	2×20	M-3531+	32	4	B-106
16	2 x 20	M-3532++	32	4	B-106
25	2 x 20	M-3534	32	4	B-106
35	2 x 20	M-3535	32	4	B-106
30	2×25	M-3536	45	4	B-106
50	2×25	M-3537	45	4	B-106
	3 x 25	M-3538	65	4	8-106
8 mm Ø	2 x 25	M-3539	45	4	B-106
	3 x 25	M-3540	65	4	B-106
70	3×25	M-3541	65	4	B-106
	4 x 25	M-3544	65	4	B-106
10 mm Ø	3 x 25	M-3545	65	4	B-106
	4 x 25	M-3548	65	4	B-106
95	4×25	M-3549	90	4	B-106
	5 x 25	M-3550	90	4	B-106
120	5 x 25	M-3551	90	4	B-106
10000	5 x 30	M-3552	115	4	B-106
150	5×30	M-3553	115	4	B-106
	5 x 40	M-3554	150	4	B-106
185	5 x 40	M-3555	150	4	B-106
	5 x 50	M-3556	200	5	B-107
240	5 x 50	M-3557	200	5	B-107
	6 x 50	M-3558	2-150	5	B-107
300	6 x 50	M-3559	2-150	5	B-107
	8 x 50	M-3560	2-200	5	B-107

+(1)38-4588 Sleeve/Weld Req'd ++(1)38-4589 Sleeve/Weld Req'd

Section I

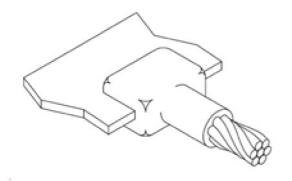
type CB-4

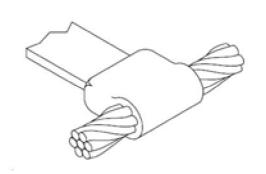
Horizontal Cable Tap to Horizontal Bus

Section I

type CB-5

Horizontal Cable Tap to Horizontal Cable Run





CABLE SIZE Sq. mm	LUG SIZE in mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
10	2 x 20	M-3561+	25	4	B-106
16	2 x 20	M-3562++	32	4	B-106
25	2 x 20	M-3563	25	4	B-106
35	2 x 20	M-3565	32	4	B-106
30	2 x 25	M-3566	45	4	B-106
50	2 x 25	M-3567	45	4	B-106
	3 x 25	M-3568	45	4	B-106
8 mm Ø	2 x 25	M-3569	45	4	B-106
	3 x 25	M-3570	45	4	B-106
70	3 x 25	M-3571	65	4	B-106
	4 x 25	M-3572	65	4	B-106
10 mm Ø	3 x 25	M-3575	65	4	B-106
	4 x 25	M-3576	65	4	B-106
95	4 x 25	M-3579	90	4	B-106
	5 x 25	M-3580	90	4	B-106
120	5 x 25	M-3581	90	4	B-106
	5 x 30	M-3582	115	4	B-106
150	5 x 30	M-3583	115	4	B-106
	5 x 40	M-3584	115	4	B-106
185	5 x 40	M-3585	150	4	B-106
	5 x 50	M-3586	150	4	B-106
240	5 x 50	M-3587	200	4	B-106
	6 x 50	M-3588	250	4	B-106
300	6 x 50	M-3589	2-150	5	B-107
	8 x 50	M-3590	2-200	5	B-107

÷(1)	38-4588	Sleeve	Weld	Req'd
++(1)	38-4589	Sleeve	Weld	Reg'd

CABLE SIZE Sq. mm	LUG SIZE in mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
10	2×20	M-35934-	45	4	B-106
16	2 x 20	M-3594++	45	4	B-106
25	2 x 20	M-3595	45	4	B-106
35	2 x 20	M-3596	45	4	B-106
30	2 x 25	M-3597	65	4	B-106
50	2 x 25	M-3598	65	4	B-106
	3 x 25	M-3599	65	4	B-106
8 mm Ø	2 x 25	M-3600	65	4	B-106
	3 x 25	M-3601	65	4	B-106
70	3 x 25	M-3602	90	4	B-106
	4 x 25	M-3603	115	4	B-106
10 mm Ø	3 x 25	M-3606	115	4	B-106
	4 x 25	M-3607	150	4	B-106
95	4 x 25	M-3610	150	4	B-106
	5 x 25	M-3611	150	4	B-106
120	5 x 25	M-3612	150	4	B-106
	5 x 30	M-3613	200	4	B-106
150	5 x 30	M-3614	200	4	B-106
	5 x 40	M-3615	250	4	B-106
185	5 x 40	M-3616	250	4	B-106
	5 x 50	M-3617	2-150	5	B-107
240	5 x 50	M-3618	2-150	5	B-107
	6 x 50	M-3619	2-200	5	B-107
300	6 x 50	M-3620	2-250	5	B-107
	8 x 50	M-3621	2-250	5	B-107

+(2)38-4588 Sleeve/Weld Reg'd ++(2)38-4589 Sleeve/Weld Reg'd

Section I

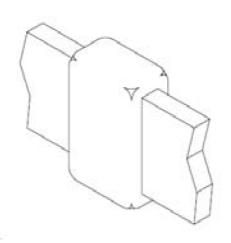
type BB-1

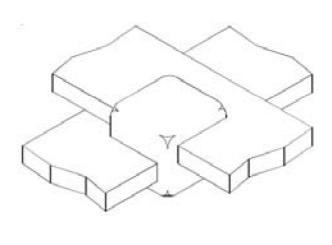
Horizontal Bus Bar End to End

Section I

type BB-41

Horizontal Bus Bar Cross Bars Uncut





COPPER BAR SIZE in mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
2 x 20	M-3628	45	4	B-106
2 x 25	M-3629	65	4	B-106
2 x 30	M-3630	65	4	B-106
3 x 20	M-3631	45	4	B-106
3 x 25	M-3632	65	4	B-106
3 x 30	M-3633	90	4	B-106
3 x 40	M-3634	115	4	B-106
4 x 25	M-3635	90	4	B-106
4×30	M-3636	115	4	B-106
4×40	M-3637	150	4	B-106
5 x 30	M-3638	115	4	B-106
5 x 40	M-3639	150	4	B-106
5 x 50	M-3640	200	4	B-106
6 x 40	M-3641	200	4	B-106
6 x 50	M-3642	250	4	B-106
6 x 60	M-3643	250	4	B-106
6 X 80	M-3644	2-200	5	B-107
8 x 50	M-3845	2-150	.5	B-107
8 x 60	M-3646	2-200	5	B-107
8 X 80	M-3647	500	5	B-107
10 x 60	M-3648	500	5	B-107
10 X 80	M-3649	3-200	5	B-107

COPPER BAR SIZE in mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	CLAMP CAT. NO.
2 x 20	M-9807	45	4	B-106
2 x 25	M-4344	65	4	B-106
2 x 30	M-9796	65	4	B-106
3 x 20	M-9797	65	- 4	B-106
3 x 25	M-4935	65	4	B-106
3 x 30	M-9798	90	4	B-106
3 x 40	M-9799	115	4	B-106
4 x 25	M-9800	. 90	- 4	B-106
4 x 30	M-9801	90	- 4	B-106
4 x 40	M-9802	150	- 4	B-106
5 x 30	M-9803	115	4	B-106
5 x 40	M-9804	150	4	B-106
5 x 50 & WIDER	M-9805	200	5	B-107
6 x 31	M-9806	150	4	B-106
6 x 50 & WIDER	M-3370	250	5	B-107

Section I

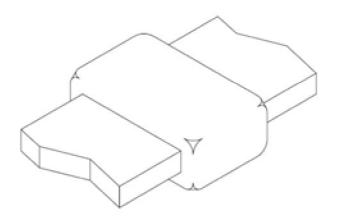
type BB-7

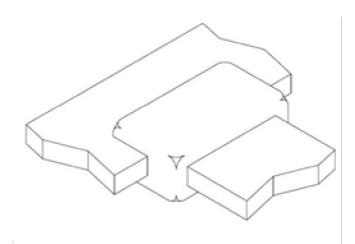
Horizontal Flat Bus Bar End to End

Section I

type BB-14

Horizontal Flat Bus Bar Run and Tap





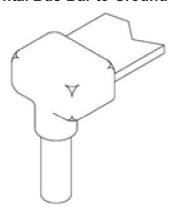
COPPER BAR SIZE in mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
2 x 20	M-3804	45	-4	B-106
2 x 25	M-3805	45	4	B-106
2 x 30	M-3806	65	4	B-106
3 x 20	M-3807	45	4	B-106
3 x 25	M-3808	65	4	B-106
3 x 30	M-3809	65	4	B-106
3 x 40	M-3810	65	4	B-106
3 x 50	M-3811	90	4	B-106
4 x 20	M-3812	65	4	B-106
4 x 25	M-3813	90	4	B-106
4 x 30	M-3814	90	4	B-106
4 x 40	M-3815	115	4	B-106
5 x 20	M-3816	90	- 4	B-106
5 x 25	M-3817	90	4	B-106
5 x 30	M-3818	115	4	B-106
5 x 40	M-3819	150	4	B-106
5 x 50	M-3820	200	5	B-107
6 x 25	M-3821	115	4	B-106
6 x 30	M-3822	150	4	B-106
6 x 31	M-9388	150	4	B-106
6 x 40	M-3823	200	4	B-106
6 x 50	M-3824	250	5	B-107
6 x 60	M-3825	2-150	5	B-107
8 x 50	M-3826	2-150	5	B-107
8 x 60	M-3827	2-200	5	B-107
10 x 50	M-3828	2-200	- 5	B-107
10 x 60	M-3829	500	5	B-107

COPPER BAR SIZE in mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
2 x 20	M-3831	45	4	B-106
2 x 25	M-3832	45	4	B-106
2 x 30	M-3833	65	4	B-106
3 x 20	M-3834	45	4	B-106
3 x 25	M-3835	65	4	B-106
3 x 30	M-3836	65	4	B-106
3 x 40	M-3837	90	4	B-106
4 x 20	M-3838	65	4	B-106
4 x 25	M-3839	90	4	B-106
4 x 30	M-3840	90	4	B-106
4 x 40	M-3841	115	4	B-106
5 x 20	M-3842	90	4	B-106
5 x 25	M-3843	90	4	B-106
5 x 30	M-3844	115	4	B-106
5 x 40	M-3845	150	4	B-106
5 x 50	M-3846	200	5	B-107
6 x 31	M-3399	200	4 .	B-106
6 x 40	M-3847	200	4	B-106
6 x 50	M-3848	250	5	B-107
6 x 60	M-3849	2-150	5	B-107
8 x 50	M-3850	2-150	5	B-107
8 x 60	M-3851	2-200	5	B-107
10 x 60	M-3852	500	5	B-107

Section I

type BR-1

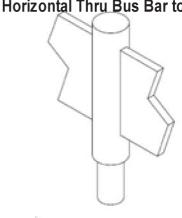
Horizontal Bus Bar to Ground Rod





type BR-2

Horizontal Thru Bus Bar to Ground Rod



GRD ROD	BAR SIZE	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT, NO.
12.8	2×20	M-3912	65	4	B-106
	2 x 25	M-3913	65	4	B-106
	2 x 30	M-3914	90	4	B-106
	3 x 20	M-3915	90	4	B-106
	3 x 25	M-3916	90	4	B-106
	3 x 30	M-3917	90	4	B-106
	3 x 40	M-3918	90	4	B-106
	3 x 50	M-3919	115	4	B-106
	4 x 20	M-3920	90	4	B-106
	4 x 25	M-3921	90	4	B-106
14.3	2 x 30	M-3922	115	4	B-106
	3 x 20	M-3923	90	4	B-106
	3 x 25	M-3924	90	4	B-106
	3 x 30	M-3925	115	4	B-106
	3 x 40	M-3926	115	4	B-106
	3 x 50	M-3927	150	4.	B-106
	4 x 20	M-3928	90	4	B-106
	4 x 25	M-3929	115	- 4	B-106
	5 x 25	M-3930	115	4	B-106
	5 x 30	M-3931	150	4	B-106
	5 x 40	M-3932	150	4	B-106
	5 x 50	M-3933	200	4.	B-106
	6 x 25	M-3934	150	4	B-106
	6 x 30	M-3935	150	4	B-106
	6 x 40	M-3936	200	4	B-106
	6 x 50	M-3937	200	5	B-107
17.2	2 x 30	M-3938	150	4	B-106
	3 x 20	M-3939	115	4	B-106
	3 x 25	M-3940	150	4	B-106
	3 x 30	M-3941	150	4	B-106
	3 x 40	M-3942	200	4	B-106
	3 x 50	M-3943	2-150	5	B-107
	4 x 20	M-3944	150	4	B-106
	4 x 25	M-3945	150	4	B-106
	5 x 25	M-3946	150	4	B-106
	5 x 30	M-3947	200	4	B-106
	5 x 40	M-3948	200	4	B-106
	5 x 50	M-3853	2-150	5	B-107
	6 x 25	M-3854	200	4	B-106
	6 x 30	M-3855	250	4	B-106
	6 x 40	M-3856	2-150	5	B-107
	6 x 50	M-3857	2-200	5	B-107

GRD ROD	BAR SIZE	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
12.8	2 x 20	M-3949	65	4	B-106
	2 x 25	M-3950	65	4	B-106
	2 x 30	M-3951	90	4	B-106
	3 x 20	M-3952	90	4	B-106
	3 x 25	M-3953	90	4	B-106
	3 x 30	M-3954 M-3955	90 90	4	B-106 B-106
	3 x 40 3 x 50	M-3956	115	4	B-106 B-106
	4 x 20	M-3957	90	4	B-106
	4 x 25	M-3958	90	4	B-106
14.3	2 x 30	M-3959	90	4	B-106
14.0	3 x 20	M-3960	90	4	B-106
	3 x 25	M-3961	90	4	B-106
	3 x 30	M-3962	115	4	B-106
	3 x 40	M-3963	150	- 4	B-106
	3 x 50	M-3964	200	4	B-106
	4 x 20	M-3965	90	- 4	B-106
	4 x 25	M-3966	115	- 4	B-106
	5 x 25	M-3967	115	4	B-106
	5 x 30	M-3968	150	4	B-106
	5 x 40	M-3969	150	- 4	B-106
	5 x 50	M-3970	200	4	B-106
	6 x 25	M-3971	150	4	B-106
	6 x 30	M-3972	150	4	B-106
	6 x 40	M-3973	200	4	B-106
47.0	6 x 50	M-3974	250	4	B-106
17.2	2 x 30	M-3975	150	4	B-106
	3 x 20	M-3976	150	4	B-106
	3 x 25 3 x 30	M-3977 M-3978	150 150	4	B-106 B-106
	3 x 40	M-3979	200	4	B-106
	3 x 50	M-3980	2-150	5	B-107
	4 x 20	M-3981	150	4	B-106
	4 x 25	M-3982	200	4	B-106
	5 x 25	M-3983	150	4	B-106
	5 x 30	M-3984	200	4	B-106
	5 x 40	M-3985	200	4	B-106
	5 x 50	M-3986	2-150	5	B-107
	6 x 25	M-3987	200	- 4	B-106
	6 x 30	M-3988	250	4	B-106
	6 x 40	M-3989	250	4	B-106
	6 x 50	M-3858	2-150	5	B-107

Section I

type BS-1

Vertical Bus Bar Tap to Vertical Steel Surface

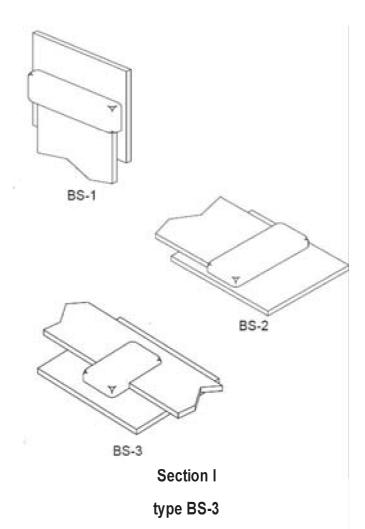
BUS BAR SIZE mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	CLAMP CAT. NO
2 x 20	M-4066	65	4	B-106
2 x 25	M-4067	90	4	B-106
2 x 30	M-4068	90	4	B-106
3 x 20	M-4069	65	- 4	B-106
3 x 25	M-4070	90	4	B-106
3 x 30	M-4071	90	4	B-106
3 x 40	M-4072	150	4	B-106
4 x 25	M-4073	90	4	B-106
4 x 30	M-4074	115	4	B-106
4 x 40	M-4075	200	4	B-106
5 x 30	M-4076	150	. 4	B-106
5 x 40	M-4077	200	4	B-106
5 x 50	M-4078	250	- 4	B-106
6 x 40	M-4079	250	- 4	B-106
6 x 50	M-4080	2-150	5	B-107
6 x 60	M-4081	2-200	5	B-107
6 x 80	M-4082	500	5	B-107
8 x 50	M-4083	2-200	- 5	B-107
8 x 60	M-4084	500	5	B-107
8 x 80	M-4085	3-200	- 5	B-107
10 x 60	M-4066	3-200	5	B-107
10 x 80	M-4087	3-250	- 5	B-107

Section I

type BS-2

Horizontal Bus Bar Tap to Horzontal Steel Surface

BUS BAR SIZE mm	MOULD CAT, NO.	WELD METAL CAT. NO.	PRICE KEY	CLAMP CAT. NO.
2 × 20	M-4090	65	4	8-106
2×25	M-4091	90	- 4	B-106
3 x 20	M-4092	90	4	B-106
3 x 25	M-4093	90	4	B-106
3 x 30	M-4094	115	4	B-106
3 x 40	M-4095	115	4	B-106
4 x 25	M-4096	90	4	B-106
4 x 30	M-4097	150	4	8-106
4 x 40	M-4098	200	4	B-106
5 x 30	M-4099	200	4	B-106
5 x 40	M-4100	200	4	B-106
5 x 50	M-4101	2-150	5	B-107
6 x 40	M-4102	250	4	B-106
6 x 50	M-4103	2-150	5	B-107
8 x 50	M-4104	2-200	- 5	8-107



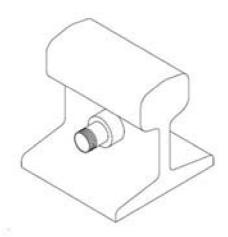
Horizontal Bus Bar Thru to Horzontal Steel Surface

BUS BAR SIZE mm	MOULD CAT. NO.	WELD METAL CAT. NO.	PRICE KEY	CLAMP CAT. NO.
2×20	M-2892	65	4	B-106
2×25	M-2893	90	4	B-106
3 x 20	M-2909	90	4	B-106
3 x 25	M-2911	115	4	B-106
3 x 30	M-2912	115	4	B-106
3 x 40	M-2913	150	- 4	B-106
4 x 25	M-2939	115	4	B-106
4 x 30	M-2940	150	4	B-106
4 x 40	M-2954	200	4	B-106
5 x 30	M-2985	200	4	B-106
5 x 40	M-2986	250	4	B-106
5 x 50	M-2989	250	4	B-106
6 x 50	M-2990	250	4	B-106
8 x 60	M-4257	2-150	5	B-107
10 x 60	M-4266	2-200	5	B-107

Section I

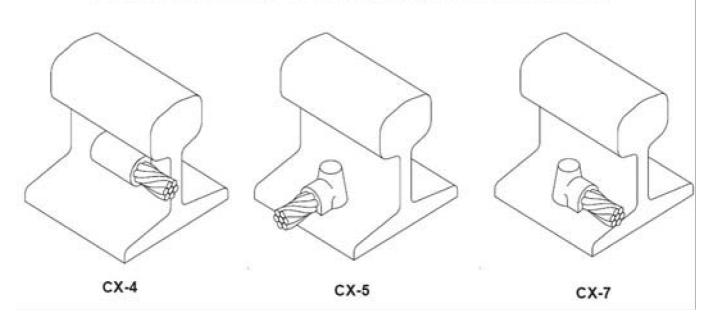
type RX-1

Stud to Web of Rail



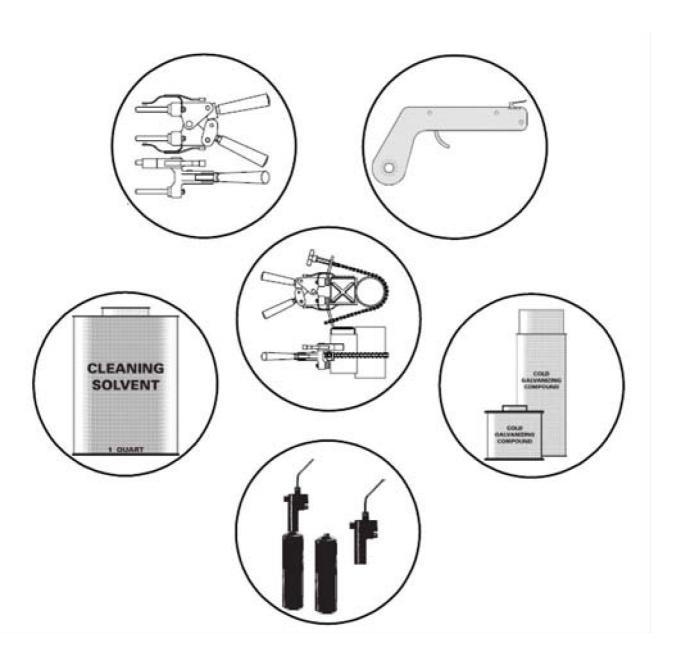
COPPER BAR SIZE in mm	MOULD CAT, NO.	WELD METAL CAT. NO.	PRICE KEY	HANDLE CLAMP CAT. NO.
M6	M-4712	25	4	B-106
M8	M-4714	32	4	B-106
M10	M-4798	45	4	B-106
M12	M-4815	65	4	B-106
M16	M-4433	115	4	B-106

FOR CABLE TO RAIL CONNECTIONS, CONTACT FACTORY.





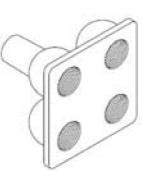
Section II
Kingsweld Moulds
Weld Metal
Handle Clamps &
Accessories



Electrical Connections Catalogue

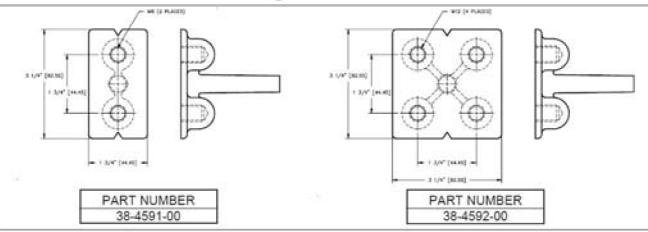
KingsWeld Moulds, Weld Metal & Accessories

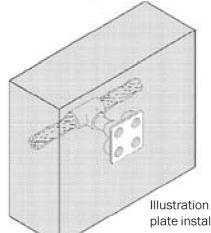
Section II Kingsweld Ground Plates



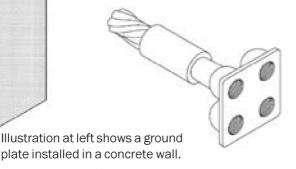
Ground Plates

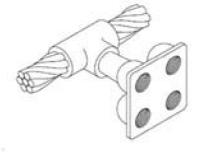
When cast into concrete structures, these offer grounding points for equipment, machinery etc. They are made from high quality copper alloy and can be KingsWelded easily to copper cable.

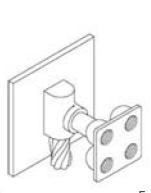




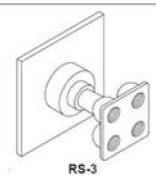
Cable may be welded to the stud of the ground plate in several configurations. Contact KingsWeld for further information.





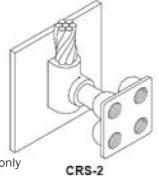


CRS-1



NOTE:

For structural purposes, weld types RS-3, CRS-1 and CRS-2 should only be used when the ground plate is to be encased in concrete.







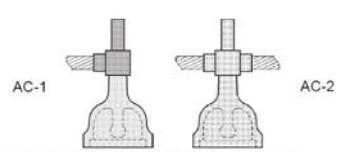
Aircraft Grounding Receptacle

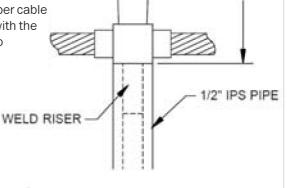
Aircraft Grounding Receptacle 38-0119-00 is a copper alloy casting used for static grounding in aircraft refueling areas. The receptacle when installed, is flush with the airport apron surface and provides a permanent, corrosion-proof static grounding connection. It can be easily attached to copper cable or ground rods in several configurations with a KingsWeld mould.

type AC KingsWeld Mould

Horizontal Cable to Aircraft Grounding Receptacle

Type AC-1 is used to terminate a horizontal copper cable to a ground receptacle. Type AC-2 is used to connnect a horizontal through copper cable to a ground receptacle. KingsWeld types AC-1 and AC-2 are made with the receptacle in an inverted position. The resulting riser is then used to position the receptacle on top of 1/2" IPS pipe.





4 1/2"

2 3/4 DIA.

type AR & ACR KingsWeld Mould

Horizontal Cable to Aircraft Grounding

Receptacle to Ground Rod

Type AR-1 is used to weld a ground receptacle to the top of a ground rod. TYPES ACR-1 and ACR-2 are used to weld a horizontal cable and ground receptacle to the top of a ground rod.



KingsWeld Moulds

The copper exothermic reaction takes place within a specially designed, fine graphite KingsWeld mould that permits free flow of molten metal to all sections of the weld cavity. The weld cavity is designed to allow easy removal of the KingsWeld mould from the finished joint to increase mould life.

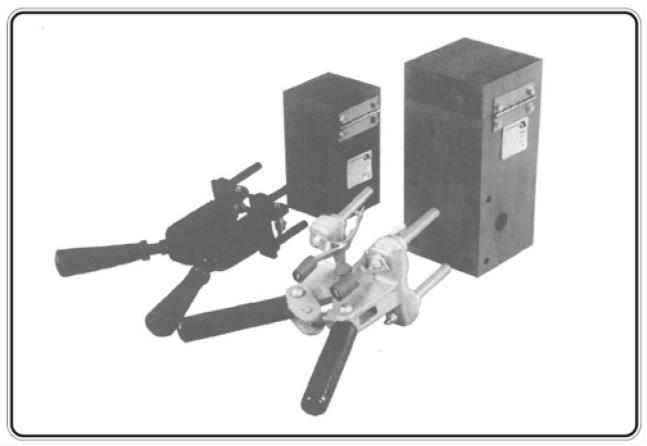
The average life of a KingsWeld mould is 50 plus welds depending on the care and treatment it receives. The maximum wear on a mould takes place at the mould openings due to forcing a mould shut over "out of round" conductors, hitting and then chipping opening with ends of conductors, etc. To increase the mould life, "wear plates" can be factory installed around the mould openings. They can be supplied for all KingsWeld moulds for 70 sq mm cable sizes and larger. To order, simply add the suffix "W" to the KingsWeld mould catalogue number such as M-3008-W.

In many cases, a customer will use very heavily oxidised reclaimed conductor for his grounding system. Due to this heavy oxidation, a thorough cleaning job cannot be done. In these cases, a "heavy duty" KingsWeld mould is recommended as it utilises a larger size cartridge than the standard duty mould. The actual heat of reaction is not

increased but is prolonged for a longer period of time and allows for burn-off of the heavy oxidation. The completed joint in the physical size is, of course, larger than that produced by a standard mould. At times, a customer may feel that the calculated theoretical ground fault current may be higher and prefers the heavy duty mould so that he will obtain the greater mass of metal around the finished connection. A standard duty mould **may not** be used as a heavy duty mould by merely using a larger cartridge. To order a heavy duty mould, contact the KingsWeld sales office.

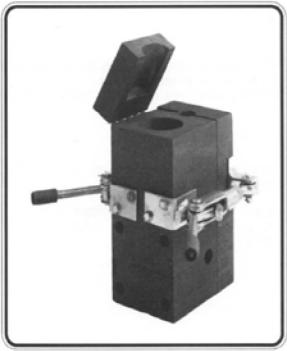
On some very large cable to cable, or bar to bar connections which require multiple cartridges, a seperate crucible must be used. A single mould having both crucible and weld cavity as an integral unit, would be excessively large, expensive and could only be used for the specific application. The seperate crucible is placed directly on top of the KingsWeld mould which contains only the weld cavity. In this manner, the customer gains a cost advantage and flexibility in that the same crucible can be used on different moulds.

A set of instructions is packaged with each KingsWeld mould.

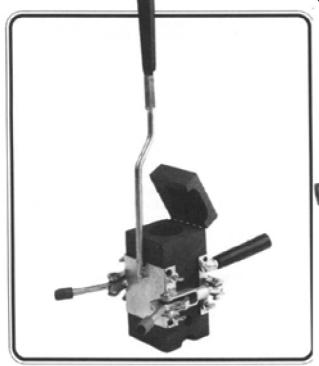


KingsWeld Moulds

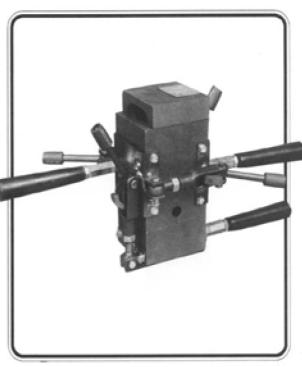




KingsWeld Mould Price Key 3 Frame (Typical) KingsWeld Mould Price Key 7 & 8 Frame (Typical)



KingsWeld Mould Price Key 14 Frame (Typical)



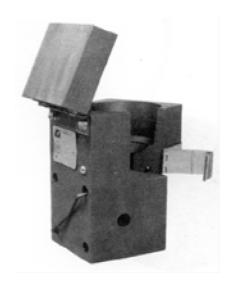
KingsWeld Mould Price Key 15 & 16 Frame (Typical)

KingsWeld Moulds

Split Crucibles

Moulds that have horizontally split moulds may be furnished with split crucibles. Split crucibles make it easier to clean the crucible after each weld.

To order split crucibles, add suffix "-C" to the KingsWeld mould catalogue number. (Example, M-3031-C).



Wear Plates

The average life of a KingsWeld mould is 50 plus welds depending on the care and treatment it receives. The maximum wear on a mould takes place at the mould openings due to forcing a mould shut over "out of round" conductors, hitting and then chipping openings with ends of conductors etc. To increase mould life, "wear plates" can be factory installed around the mould openings. They can be supplied for all moulds for 50 sqmm cable to 240 sqmm cable. To order, simply add the suffix "-W" to the KingsWeld catalogue number. (Example, M-3008-W).

Wear Plates are available for the following weld type:

CB-1	1	CC-1	2	CC-2	3	CC-6	2
CC-7	4	CR-1	1	CR-2	2	CR-3	2
CS_1	1	CS-2	2	CS-3	1		



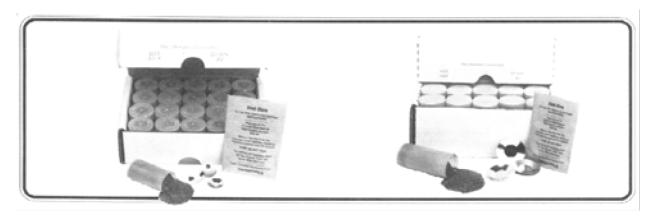
KingsWeld Weld Metal

The size and weight (in grams) of the cartridge are marked on each individual cartridge. When a particular size cartridge is not available, a combination of smaller cartridges, or a portion of a larger cartridge may be used to arrive at the approximate gram weight required. When using several smaller cartridges, take care not to get the starting powder mixed between the weld metal. The starting powder is packed in the bottom of each cartridge and when poured into a KingsWeld Mould should be spread evenly on top of the weld powder. Due to the cohesiveness of the starting powder, it does not mix with the weld powder and the bottom of the cartridge should be tapped with a flint gun to be sure all the starting powder has been removed. DO NOT TAMPER WITH THE POWDER ONCE IT IS PLACED IN THE MOULD.

KingsWeld powders are packed in moisture-resistant plastic cartridges that have tight fitting caps. These cartridges and the necessary steel discs are then packed in boxes that are hermetically-sealed in plastic bags. This ensures the powder arrives in good condition, always dry and ready for fast positive ignition.

KingsWeld Powder comes in two types; one for welding copper to copper to steel and copper to rail and one for welding copper to cast iron.

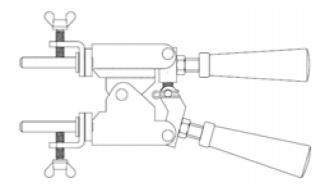
STANDARD CARTRIDGE SIZE	CAST IRON CARTRIDGE SIZE	PACKED PER BOX
#15	-	20
#25	#25CI	20
#32	#32CI	20
#45	#45CI	20
#65	#65CI	20
#90	#90CI	10
#115	#115CI	10
#150	-	10
#200	-	10
#250	-	10
#500	-	10



KingsWeld Handle Clamps

For most connections involving lugs, cable, or rectangular bus, KingsWeld Handle Clamps are used. KingsWeld Handle Clamps make possible the use of many different sizes and types of moulds with only two different clamps. The two KingsWeld Handle Clamps are catalogue numbers B-106 and B-107. These will fit 95% of all standard moulds.

- 1. Use B-106 clamps for all moulds having a price key 4, 7, OR 17. These moulds are a nominal 3-1/8" x 3-1/8" square.
- 2. Use B-107 clamps for all moulds having a price key 5, 6 or
- 8. These moulds are a nominal 4" x 4" square.
- 3. All moulds having a price key 2, 3, 9, 10, 11, 12, 13, 14, 15 or 16 have an attached frame; seperate handles are not required.



Special KingsWeld Handle Clamps

Horizontal & Vertical Chain Clamps

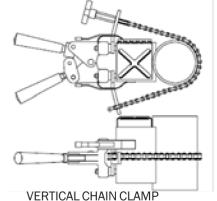
The KingsWeld Handle Chain Clamps are used to a hold a mould in position on horizontal or vertical pipe up to 4" in diameter. For larger pipe, a 20" chain extension is available to allow the chain clamps to be used on pipe up to 10" in diameter. The chain clamp can be purchased complete with 40-0106-00 or 40-0107-00 KingsWeld Handle Clamp or if you already have a set of clamps, you can order the chain and mounting assembly seperately. The mounting assembly can easily be mounted on the prongs of your existing handle clamp. 20" chain extension part 40-0106-27.

Chain Clamp and KingsWeld Handle Clamp

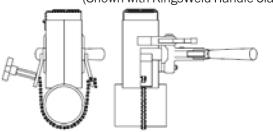
		•
With Price Key	Weld Types	Position
4 & 17	CS-3, 4, 7 & 23	VERTICAL
5 & 6	CS-3, 4, 7 & 23	VERTICAL
4 & 17	CS-1, 2, 5, 8 & 9	HORIZONTAL
5 & 6	CS-1, 2, 5, 8 & 9	HORIZONTAL
	With Price Key 4 & 17 5 & 6 4 & 17	With Price Key Weld Types 4 & 17 CS-3, 4, 7 & 23 5 & 6 CS-3, 4, 7 & 23 4 & 17 CS-1, 2, 5, 8 & 9

Chain Clamp and KingsWeld Handle Clamp

40-0107-20 5 & 6	CS-3, 4, 7 & 23	VERTICAL
40-0107-36 5 & 6	CS-1, 2, 5, 8 & 9	HORIZONTAL



(Shown with KingsWeld Handle Clamp)

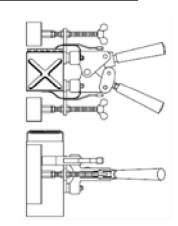


HORIZONTAL CHAIN CLAMP (Shown with KingsWeld Handle Clamp)

Vertical Magnetic Clamps

The KingsWeld Handle Magnetic Clamp is used to hold a mould in position on a vertical steel surface. The magentic clamp can be purchased complete with 40-0106-00 KingsWeld Handle Clamp or if you already have a set of handles, you can order the magnetic mounting assembly seperately. The mounting assembly can easily be mounted on the prongs of your existing 40-0106-00 handle clamp. A minimum width of 10" is required.

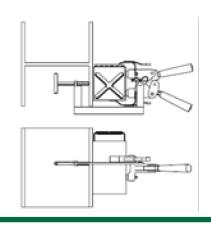
Part	Fits Moulds	For Use With
Number	With Price Key	Weld
Types		
W/40-0106-00 40-4431-00	4 & 17	CS-3, 4, 7 & 23



Mould Support Clamp

The mould support clamp is used to hold a mould in position on a vertical steel column or angle. It is easily attached to the KingsWeld Handle Clamps. The mould support clamp can be used with weld types CS-3, CS-18, CS-23 & CS-27.

Part no: 40-3657-00



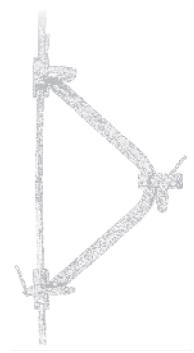


KingsWeld Accessories



38-0330-00 Cable Clamp

The KingsWeld Cable Clamp is recommended for holding a wide range of cables properly in place when welding cables are under tension. This prevents the cables from pulling out of the mould when the weld is made. KingsWeld Cable Clamp can also be used to hold ground rods together for easier welding of KingsWeld Mould type RR-1.





Packing Material

Packing material is used to prevent the molten weld metal from leaking out of the mould. When the cable opening becomes worn from heavy use, the packing material may be used to prolong mould use. It is also used around 7 strand cable to prevent leaking. Packing material comes in a 1 lb or 5 lb packs.

Part #: Description: 38-4129-00 1 lb package 38-4129-05 5 lb package

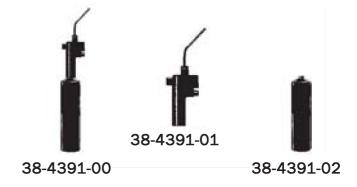
Hand Held Propane Torch

Hand Held torches are used to preheat the moulds to remove any moisture.

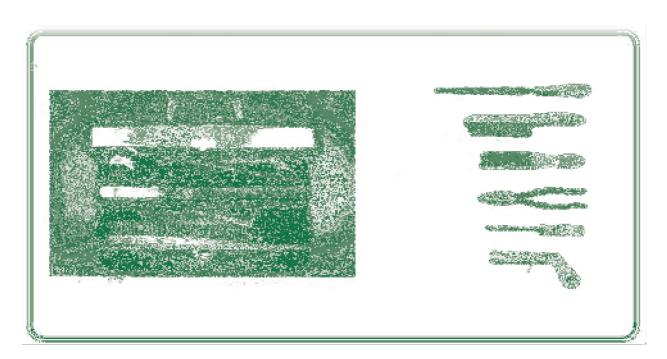
Part #: Description: 38-4391-00 Propane Bot

Propane Bottle with Self Igniting Torch Head

38-4391-01 Self Igniting Torch Head 38-4391-02 Self Igniting Torch Head



KingsWeld Accessories



KingsWeld Tool Kit

Part #: Description:
38-0302-00 Tool Kit with Tools Shown except Rasp
38-0302-02 Tool Kit with Tools Shown and Rasp
38-0303-00 Tool Box only

KingsWeld Tools

Part #: Description:
38-0304-00 8" File
38-0305-00 Wire Brush
38-0306-00 Card Cloth Brush
38-0307-00 Crimping Tool
38-0308-00 6" Screwdriver
38-0309-00 Flint Gun



38-0101-00 RASP

This tempered steel, curved rasp is recommended for removing rust and mill scale from steel and cast iron surfaces. The blade is replaceable. Specify part #38-0101-01.

Not recommended for use on galvanised surfaces.



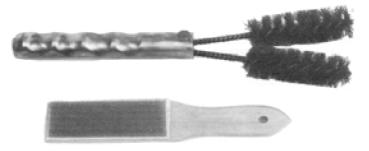
38-0109-00 Flint Gun

The 38-0309-00 Flint Gun is used to ignite the starting powder. Each mould that is sold with a frame has a flint gun included.

Replacement flints are available, request part #38-0309-01.



KingsWeld Accessories



Cable Cleaning and Card Cloth Brush

The Cable Cleaning Brush is recommended for cleaning heavily oxidised cables. The V-Shape brushes permit their use over a wide range of cable sizes. Brush assembly consists of a handle with two stiff wire bristle brushes that are rotatable, for longer life and are replaceable. The Card Cloth Brush is used for cleaning large conductors and bus bar. It has short stiff bristles. These brushes are for cleaning cable only, not moulds.

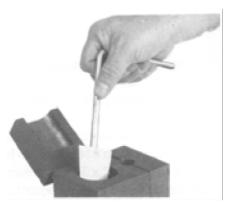
Cable Cleaning Brush 38-0135-00
Replacement Brush Set (2 Brushes) 38-0135-01
Card Cloth Brush 38-0306-00



Cleaning Solvent

Cleaning solvent is used to remove oil and grease from materials to be welded.

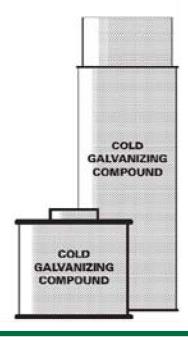
Part #38-3688-00 (Quart Can).



Mould Cleaners

Mould Cleaners are used to clean the slag from moulds that are not split through the crucible.

40-0319-01 for cartridge sizes #15 thru #65 40-0319-03 for cartridge sizes #90 thru #115 40-0319-05 for cartridge sizes #150 thru #250 40-0 for cartridge size #500



Regalvanising Compounds

When welding to galvanised steel it may be necessary to resurface exposed bare steel. This may be acclompished in several ways.

COLD GALVANISING COMPOUND

This is a 16 oz. aerosol Cold Galvanising Compound. Part #38-4384-00

REGALVANISING BAR (Not SHown)

Regalvanising with a regalvanising bar is accomplished by brushing a low temperature, self-fluxing galvanising material on the surface. Generally there is enough heat from the KingsWeld connection to melt the bar. If necessary, heat may be applied with a small propane hand torch.

Part #38-0331-00.



KingsWeld Accessories

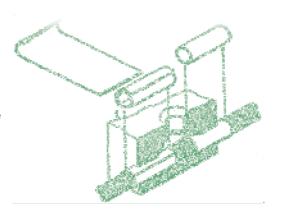
Ground Rod Driving Sleeves

Ground Rod Driving Sleeves are placed over the top of a ground rod while driving it into the ground. This prevents the top from mushrooming or flairing out. Ground rod driving sleeves come in sizes to fit all standard unthreaded ground rods.

Part#	Description
38-3662-01	12.8mm copper clad ground rod
38-3662-02	14.3mm copper clad ground rod
38-3662-03	17.2mm copper clad ground rod

Shim STock & Adapter Sleevs

KingsWeld moulds designed for larger cable sizes can be used on smaller diameter cables if copper adapter sleeves or shim stock is utilised. The copper shim stock, 010108" x 1-1/2" x 3, is normally wrapped around cable until the diameter is about equal to the KingsWeld mould opening. A tight fit is not necessary as the shim stock will unwrap slightly and prevent leakage of weld metal. To order shim stock use part #38-0329-00. Shim stock is supplied 100 pieces per box.



FOR USE ON (CABLE SIZE	and the second	USE IN	SLEEVE DIMENSIONS		
STRANDED	SOLID	PART NO.	MOULD SIZE	O.D.	I.D.	LENGTH
10 mm ² 16 mm ²	4 mm Ø	38-4588 38-4589	25 mm ² 35 mm ²	.250	.169	1.00
2.5, 4, 6 mm ²	2.5 mm Ø	38-4590	16 mm ²	.197	.118	1.00



WWW.CABLEJOINTS.CO.UK
THORNE & DERRICK UK
TEL 0044 191 490 1547 FAX 0044 477 5371
TEL 0044 117 977 4647 FAX 0044 977 5582
WWW.THORNEANDDERRICK.CO.UK